ELECTRONICS CHASSIS (REAR VIEW)
TO GYRO
POWER
TO ENSEMBLE-OUT
FROM NAV DEVICE
SERIAL CABLE
COMPUTER
TRIGGER IN/OUT
I/O CABLE
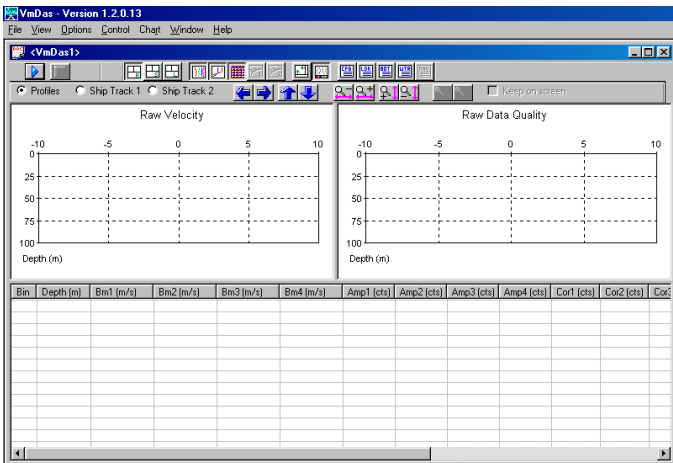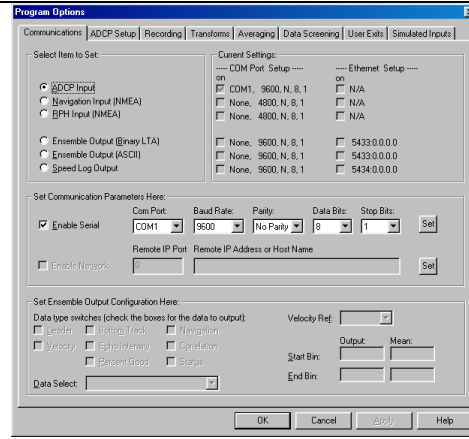TRANSDUCER

**Step 1.** Connect the Ocean Surveyor and computer as shown above.
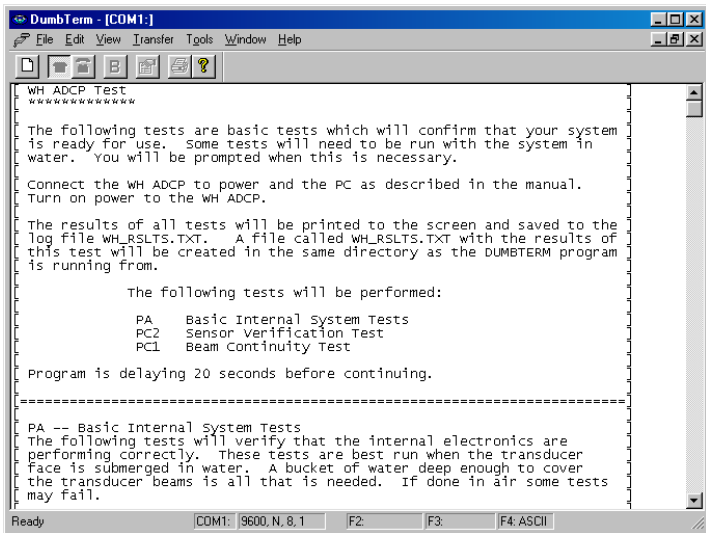
Step 2. Run the *BBTalk* script file TestOS.rds to verify the Ocean Surveyor is functioning properly.

Step 3. Start *VmDas*. On the **File** menu, click **Collect Data**. On the **Options** menu, click **Load**. Select the Default.ini file and click **Open**.


Step 4. On the **Options** menu, click **Edit Data Options**. Click the **Communications** tab and set the communications settings with the ADCP and NMEA ports.
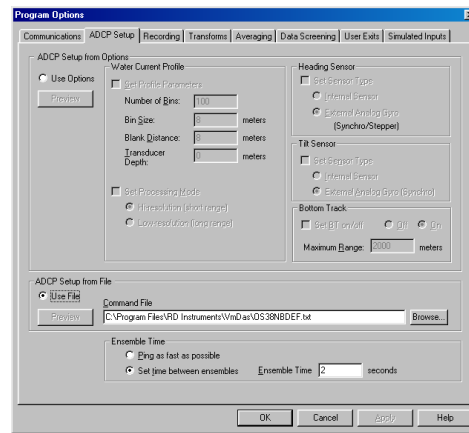
Step 5. Click the **ADCP Setup** tab. Set the **Ensemble Time** to the value shown below. Select the **Use File** button and choose a default command file for your ADCP, and load it into *VmDas* using the **Browse** button.

Ensemble Time

Frequency (kHz)	w Bottom Track (sec)	w/o Bottom Track (sec)
38	4	2
75	2	1
150	1	1
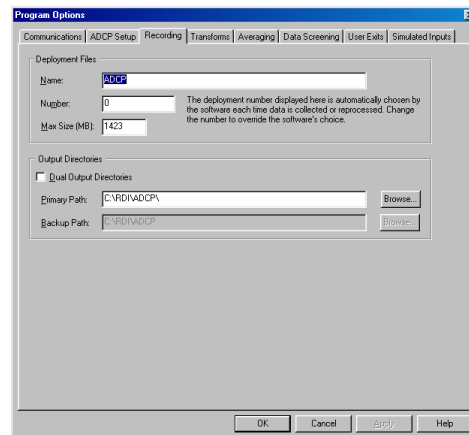
Step 6. Click the **Recording** tab. Set the deployment name and path to where the data files are recorded.
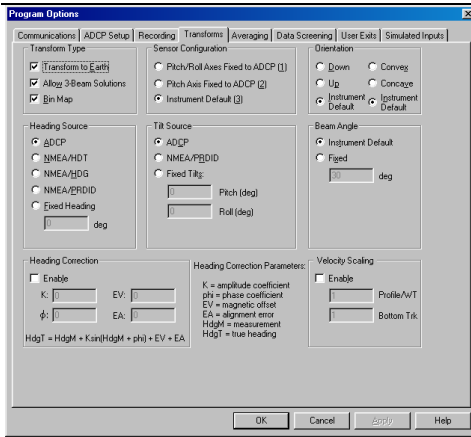
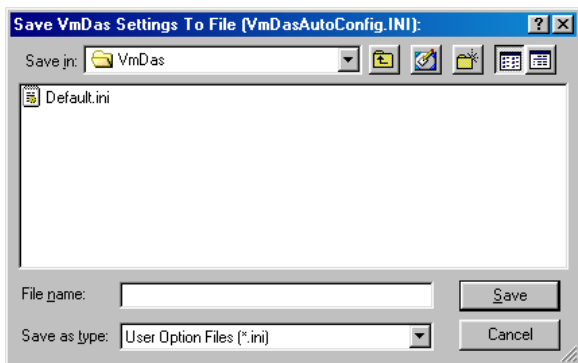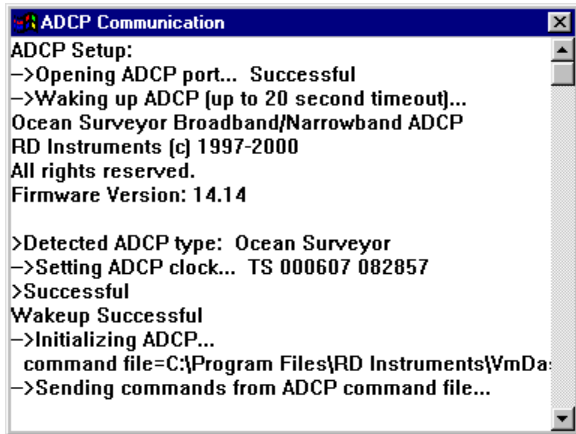Step 7. Click the **Transforms** tab and verify the **Transform Type**, **Sensor Configuration**, **Orientation**, **Heading Source**, **Tilt Source**, **Beam Angle**, and **Heading Correction** are set to your input. Click **OK**.

Step 8. On the **Options** menu, click **Save As**. The options may be saved to a file for later retrieval.

Step 9. On the **Control** menu, click **Go** to begin collecting data. The ADCP Communication and NMEA window will open and show the commands from the command file being sent to the Ocean Surveyor and the Ocean Surveyor's response.

Ocean Surveyor Care

This section contains a list of items you should be aware of every time you handle, use, or deploy your Ocean Surveyor. *Please refer to this list often*.

General Handling Guidelines

> ⚠️ **CAUTION.** Do NOT ping the Ocean Surveyor with the transducer in air. The power assembly board will short, causing the electronics chassis to no longer communicate. The transducer is pinged by sending a CS or PT5 command or if *VmDas* is started for collecting data – either of these methods will cause damage if the transducer is in air.

❏ Never set the transducer on a hard or rough surface. The urethane face may be damaged.

❏ Do not expose the transducer to prolonged sunlight. The urethane face may develop cracks. Cover the transducer face on the Ocean Surveyor if it will be exposed to sunlight.

❏ Do not scratch or damage the O-ring surfaces or grooves. All O-ring grooves and surfaces must be inspected for scratches or damages on every re-assembly. If scratches or damage exist, they must be sanded out using 400 to 600 grit sandpaper. If the damage cannot be repaired, contact RDI. Do not risk a deployment with damaged O-ring surfaces.

❏ Do not lift or support an Ocean Surveyor by the external I/O cable. The connector or cable will break.

Assembly Guidelines

❏ Always check that both the I/O cable (wet end) and the transducer end-cap connector O-ring are in place when connecting the I/O cable to the transducer. The I/O cable O-ring has a tendency to fall out if the cable connector is dropped.

❏ Read the Maintenance book for details on Ocean Surveyor re-assembly. Make sure the top hat assembly O-rings stay in their groove when you re-assemble the Ocean Surveyor. Tighten the Top Hat hardware as specified. Loose, missing, or stripped Top Hat mounting hardware or damaged O-rings can cause the Ocean Surveyor transducer to flood.

Deployment Guidelines

❏ Read the *VmDas* User's Guide. This guide has a tutorial to help you learn how to use the software.

❏ Use the default Command Files (installed to the same directory as *VmDas*) to help setup the ADCP.